

Patent Abstracts of Japan

PUBLICATION NUMBER : 09201630  
PUBLICATION DATE : 05-08-97

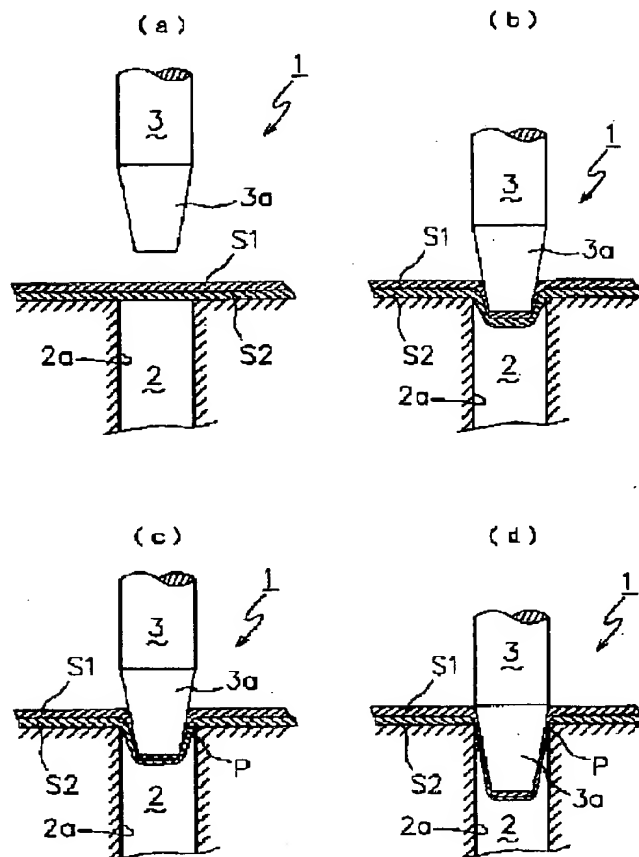
APPLICATION DATE : 25-01-96  
APPLICATION NUMBER : 08045286

APPLICANT : NITTO SEIKO CO LTD;

INVENTOR : MURAKADO HIROSHI;

INT.CL. : B21D 39/03

TITLE : METHOD FOR JOINING PLATE MATERIALS



ABSTRACT : PROBLEM TO BE SOLVED: To surely and firmly join plural sheets of plate materials.

SOLUTION: Two sheets of plate materials  $S_1$ ,  $S_2$  in a laminated state are placed on a die 2 having a hole into which a stem 3 having a tapered part 3a whose diameter becomes small toward the tip part can be entered, and the stem 3 is advanced to press each plate material  $S_1$ ,  $S_2$  by the tapered part 3a. Then, firstly the abutting plate material  $S_1$  is punched by the stem 3 to form a cylindrical part P projecting in the shifting direction of the stem 3, and the stem 3 is further advanced to break the plate material  $S_2$  of the die 2 side at near the peripheral edge part of a hole 2a of the die 2. In such a way, the laminated cylindrical part in each plate material  $S_1$ ,  $S_2$  is not formed and the cylindrical part P of the plate material is calked and then, two sheets of plate materials  $S_1$ ,  $S_2$  can surely and firmly be joined.

COPYRIGHT: (C) JPO